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ORIGINAL COMMUNICATIONS.

DIPHTHERIA.

By JAMES S. WHITMIRE, M.D., of Metamora, Ill.

Editors Chicago Medical Journal:

During the months of December, January, and to this time (Feb. 19th), in the German settlement, four miles west of this place, Diphtheria has extensively prevailed, in an unusually malignant form, and from the fact that it has been nearly exclusively confined to one township, I can view it in no other light than that of an epidemic; almost all the children in that vicinity having been affected with it in a greater or less degree.

Why it should be confined to that particular locality, and not extend its ravages over a greater extent of country, is something very incomprehensible to me. There is nothing peculiar in the topography of that locality that would seem to

indicate any local influence that might be likely to produce a detoriation of the vital forces from poisonous effluvia, either from natural or artificial causes, it being high and dry, situated on the edge of the timber, and with a beautiful prairie in front, gradually descending towards the south. The timber in the rear is nearly all cleared from the surface, which is beautifully undulating, and descending to the north, forming deep ravines, where there are crystal running brooks. The fields, in front and rear, are well cultivated, and the inhabitants industrious, temperate and frugal. They are what may be called good livers generally, but probably use more pork and sour-krout as a common diet than twice their number of Americans would do. I therefore can see no appreciable cause for this terrible scourge falling upon them, excepting that of an epidemic influence, which is wholly unaccountable to me.

We have had a dry, cold winter, mercury ranging from 32° above to 10° below 0, and no rain of any amount has fallen since Nov., 1864, until the 2d and 3d of Feb., so that, all things considered, we have had one of the most even and pleasant winters that I have seen for many years.

Viewing the character of this scourge of youth, as I do, which is that of blood-poison, without stopping to enquire of what that poison consists, or the manner of its introduction into the system, whether from external influence, or whether it is engendered within, from a vitiated condition of the circulating fluid, and hence an unhealthy molecular formation of the tissues; of these things I leave for future investigations by ætiologists. My own opinion is, that the disease is engendered within, but probably more or less influenced by external influences.

Persons attacked with diphtheria, have generally complained of soreness of the pharynx, fauces, and tonsils, general languor, lassitude, and indisposition to take food for three or four days previous to the occurrence of any febrile excitement becoming apparent. At this time on examining the

throat, an immense injection of the submucous cellular tissue, and œdema of the tonsils, soft palate, and uvula is present, not amounting to a sthenic grade of inflammation of these parts; and at this period patches of exudation of pseudo-membrane of a light straw color begin to appear, seldom covering the whole engorged part, and febrile action, with great quickness, and often frequency of pulse, is nearly always an accompaniment of this stage of the disease.

There is also more or less inflammation of the cellular tissue of the neck, about the angle of the jaw, and difficult articulation on account of the swelling, influenced more or less by the functional derangement of the cervico-spinal nervous system. The languor and weakness that occurs after the incipient stage is, no doubt, owing to the failure of the vital forces to produce the natural quantity of red globules in the blood, consequently it fails to produce a sufficient absorption of oxygen for the ordinary wants of the system, and hence the production of fibrin is lessened in quantity, and detoriated in quality, producing important molecular changes in the formation of the tissues, and necessarily follows, in consequence functional derangement of all the secretory and excretory organs, and as a consequence, there is a scanty elimination of excrementitious matter contained in the circulating fluid; and hence the fever in this disease is of a decidedly asthenic character, and the irritable, frequent pulse which always accompanies the worst form of this disease is, no doubt, owing partly to the irritation of the internal lining, or endanginm of the heart and blood-vessels, in connection with the unhealthy nutrition and consequent functional derangement of the great nervous centres.

The idea is very general among the people that this is simply a local disease, and that if the throat is once cured by proper applications, the patient will necessarily recover; and or this erroneous opinion physicians are very much to blame, for instead of talking to the friends and treating them as intelligent beings, they make an unwarranted display of swabs,

caustics, pencils, and washes; look wise, and say nothing, in order to impress the family with their superior wisdom and the great and imminent danger of their patients. This is radically wrong. On the contrary everything necessary to be done should be explained in, as nearly as practicable, the most simple manner, and the prognosis of this disease should be given in all cases in the most cautious manner possible; for there is no stage in which there is not great danger from its assuming a malignant form, or that the tendency may not be to the extension of the specific inflammation into the larynx producing what is usually called pseudo-membranous croup. In observing these rules, and then in ordering medicines or a particular regimen, your directions will be more likely to be attended to intelligibly and with greater care, so that your patients will be more secure from the intermeddlings of officious people.

On account of this general impression (that of its being simply a local disease), the physician is seldom consulted until the exudation begins to appear, and the difficulty of articulation creates alarm in the minds of the friends. However, under these circumstances, I usually administer a moderate dose of castor oil in preference to any other laxative, as it has less tendency to debilitate the system than other medicines of this class. I also pencil the tonsils and throat with a solution of iodine; ℞. Tinct. Iodine, ʒij; Pot. Iod., gr. iv; Aqua, ʒj; taking great care not to interfere with or rub off the exudation, further than the solution affects it by softening and dissolving the membrane; thus imitating nature to some extent of getting rid of it, and in this respect it possesses an influence over the ordinary remedies, caustics, etc., they coagulating and hardening the exudation. Besides, the iodine acts as a local capillary tonic whenever it comes in contact with the surfaces, and enables the engorged vessels to relieve themselves of their contents, and by absorption to get rid of the œdema consequent upon the engorgement.

For the constitutional remedies I prescribe, Pot. Chloras.,

℥iv; Ammon. Mur., ℥ij; Sp'ts Nit., ℥ij; Creosote, gtt. viij; Tinct. Ferri Mur., ℥ij; Aqua, ℥ iijss. Dose. One desert-spoonful in sweetened water, every four hours; this is for a child from five to eight years old. If there is great debility, I give Pulv. Dov. and Quinine. My reasons for using this mixture are plain, simple, and easily adduced, and it is eminently calculated to fill all the indications of treatment manifested in the character of the disease.

The chlorates by their solution in the blood, facilitate the absorption of oxygen; the chalybeate replenishes the diminishing red corpuscles, and, together rendering the capacity of the blood greater for the reception of Oxygen and thus rendering its more healthy constitution available in secretion, absorption and in the formation of the tissues; the creosote is a direct antiseptic, and thus with the revivification of the blood, by the absorption of oxygen, they must necessarily play an important part in the formation of more healthy tissues, and in connection with this, the great nervous centres are relieved from the depressing influence of vitiated blood, thus allowing its natural influence over the secretory and excretory functions, and establishing an equilibrium of the circulating fluid, by means of the restoration of this great central influence. The influence, also, of diet, in the treatment of this disease, is by no means to be overlooked. And it matters very little what method of treatment be adopted unless the patients are well-nourished from the beginning, the chances are that there will be a great mortality among them; hence I give a decided preference to rich animal broths, frequently given. Milk and a little cooked fruit, or roast potatoes, three times a day, to give the stimulus of distension. The stomach and vital forces being in no condition to assimilate solid food, is the reason for not allowing it any oftener.

I seldom or never pencil the fauces and tonsils with the solution of iodine more than three or four times, once a day. Instead of this I prepare a gargle, which I use as such, or pencil the tonsils or affected part, as the case may be, with

the same, four or five times a day, or oftener, if the throat is very painful. This gargle is composed of ℞. Alum Sulph., ʒj; Alcohol, ℥j; Acid Aromat. Sulph., ʒj; Creosote, Oil Cinnam., āā, gtt. xl; Treacle, ℥ iij. This mixture is very stimulating to the parts, and children do not like to use it, but it has a soothing influence on the tender surface, and aids the patient materially in clearing the throat of the tenacious mucus that accumulates on the diseased surface; aside from this may not the vapor of the creosote and oil that is necessarily inhaled, exert a beneficial influence from its local stimulation of the upper air passages, in preventing the exudation of the pseudo-membrane in the larynx and trachea, which not unfrequently occurs?

So far as my limited observation goes, I am decidedly of the opinion that in this respect the influence thus exerted should not be lightly regarded, and for the purpose of availing myself of whatever beneficial influence they do exert, I direct my patients to inhale them by means of a solution in warm water, put in a wide-mouthed bottle, well-corked, and two tubes through the cork, one going nearly to the bottom of the bottle, and the one for the mouth-piece simply going through the cork. It is a cheap and simple apparatus that can be prepared with very little ingenuity in almost every house. Under this course of treatment as a standard, during this epidemic, there has been forty well-marked cases of which I have had charge. Of the whole, I have lost two cases, one being 18 months, the other 10 months old. This is a ratio of 5 per ct. But if, like many other of my professional brethren are prone to do, I should call every slight affection of the throat that I am called upon to see or prescribe for, diphtheria, then I would not lose the half of one per cent., and though very many of such cases are evidently a mild character of diphtheria, yet it is unwise to make a great "ado about nothing," and alarm the friends without benefiting the patient in the least.

Now, to conclude this already too extended article, I trust that it will not be considered inappropriate, or ostentatious in

me to give, in a concise manner, the history of a single case that occurred in the same neighborhood during the prevalence of this epidemic.

Mary Gingrich, 6 yrs. old, daughter of Christian Gingrich, whose other children, seven in number, had all had the disease, was attacked about the middle of Dec. last with diphtheria. Under the general treatment, as hereinbefore detailed, she slowly recovered, so that for two weeks she had ceased to take medicine, and played about the house.

On the 17th of January, she became so hoarse that she could not speak above a whisper, and seemed to have no other serious indisposition, so that her parents supposed it to be only a cold from which she would soon recover.

On the night of the 18th, her breathing became so difficult that her parents were much alarmed, and the child was almost uncontrollable on account of impending suffocation. As soon as daylight on the morning of the 19th they sent for me. I arrived at 10 o'clock, A. M., and found her breathing with great difficulty, the air seeming to pass through a tube not larger than a goose-quill.

On account of the prevalence of diphtheria in the neighborhood, and in the family in particular, and her recent recovery from that disease, I diagnosed at once pseudo-membranous or diphtheritic croup. I explained to the parents the imminent danger of speedy dissolution, and that there were no means of saving the child's life but to open the trachea, and even that I did not propose as a radical cure, but merely as a means that might be used for the purpose of gaining time for medication, and that the opening would render the local application of remedies more eligible.

Seeing that death was inevitable in a very few hours at most, they consented to the operation, and I, assisted by my brother and partner, Dr. J. H. Whitmire, and our students, Ray and Lamson, proceeded to open the trachea immediately below the cricoid cartilege, dividing three of the rings. There was considerable hemorrhage during the operation, both ve-

nous and arterial, the latter no doubt, coming from wounding the isthmus of the thyroid gland. We took the precaution, however, to stop the bleeding by the use of the ligature, before opening the trachea.

In order to separate the opposite sides of the wound, to admit the air more freely, we had recourse to the use of a curved needle made for the purpose, with which we took a stitch on each side, vertically under the middle ring, and fastened the thread behind the neck, which answered every purpose of free respiration. After she had become quiet, I injected the larynx from the opening, with the solution of Iodine of the same strength as before mentioned for penciling, and in doing this I used one of Dr. Warren's shower syringes which is an admirable instrument for this purpose.

On the following day, 20th, I again injected the larynx with the same solution, reduced with water one-half. On the 21st I repeated the injection, still more reduced in strength, and on account of a severe cough having set in, and a tenacious glary mucus from the bronchii, almost threatening suffocation, I determined to inject them also with the weak solution last used.

On the 22d I found her cough very much relieved, and expectoration less profuse. I now removed the threads and allowed the edges of the trachea to approximate more closely, when I perceived that she breathed more freely through the mouth. After this I used no more injections.

From the first I put her upon Mur. Tinct. Iron, Creosote, Spirits Nitre, Chlor. Pot. and Mur. Ammon. in water, with a few drops of fluid Ext. Hyosciamus. During the day Quinine in tonic doses with Dover's Powders. I enjoined the free use of chicken or beef tea as a common drink.

And now, four weeks after the operation, my little patient sits up every day, eats and drinks whatever she wants, and the wound in the neck is very near closed, so that no air escapes from it, except when she coughs, and I now consider her entirely out of danger. Now, whether my patient would

have recovered so speedily, or at all, without the use of the Iodine injections, of course must remain forever unknown, but certainly there has no apparent evil results followed its use, and I am inclined to give it a decided preference over other applications, on account of its softening or dissolving power over the exudation, as well as its peculiar action upon the engorged capillaries of the part.

EXCISION OF THE TONSIL.

By JOHN T. MYERS, M. D., Fairmount, Ills.

Miss A., aged 18, who had previously enjoyed good health, went to her bed in apparent good health, on the evening of the 13th of February and slept well until about 2 o'clock A. M., when she arose with a very severe pain in the left ear. The pain being so intense, she arose and went to the family room. On entering her mother's room, she told her mother she believed she would vomit, (spoke plainly), and, making a noise as if choking, her father sprang to her relief and found she was choking. He placed his finger in her mouth and detected a large body in the throat that seemed to obstruct the passage of air; he at once pulled it aside, and immediately sent for Dr. Ray, Dr. New and myself. On arriving, we found the right tonsil (held aside by the father) considerably enlarged and elongated, acting without due meditation; and, thinking temporary relief might be obtained, at least to suffice until daylight, I punctured the tonsil with a bistoury, but it did no good; no discharge followed the operation except a few drops of blood. We then decided that excision must be performed or death would ensue. The operation was immediately performed by Dr. Ray, (the tonsil being held by a hook,) with a probe-pointed bistoury.

The young lady was immediately relieved, or sufficiently so to sleep a little before 7 o'clock A. M. The excised portion was at least one-third larger than the egg of a pigeon. No hemorrhage followed the operation and the patient rapidly recovered, with the exception of an abscess of the left ear, which is now well and no defect of the hearing.

March 7th, 1865.

ON THE THERAPEUTIC VALUE OF NUX VOMICA IN THE TREATMENT OF ASTHENIC FORMS OF DISEASE.

By A. MIDDLEDITCH, M. D., Waterloo, Iowa.

About four years ago, I had under treatment a case of dysentery, attended by a low, slow form of fever, which, under the use of tonics and other treatment usually followed in such cases, the patient, a child about two years old, became daily worse, until it sunk into a state of extreme exhaustion, with coma and a cadaverous appearance. At this period, I asked Dr. B. to see the case with me. In his opinion, the last hope had nearly expired, and treatment useless; and I was left to act from my own resources. Prescribed Nux Vomica in doses of 1-60 gr. of the solid extract in aqueous solution every hour. After a few doses, I could begin to perceive a little change; the pulse beat fuller and slower; child less stupid, and the face less death-like. These symptoms all gradually improved and the patient recovered.

Soon after this, I was called to consult with the attending physician, in the case of a young man in the last stages of Typhoid fever. His immediately dangerous symptom was death from coma, and which was already so intense that it

was impossible to arouse him to the least consciousness. This young man had been very sick for more than two weeks, and it was very evident to my mind that this stupor, which had gradually supervened, was caused not by oppression, but by prostration of the nervous centres; and, therefore, instead of blistering, the question arose, is there not *something* which will *create* nerve force, rather than arouse an unnatural power for a few hours only, by blisters? I believed that Nux Vomica would do this, if anything could; which we gave in doses of 1-12 gr., every hour, of the solid extract. Very soon we saw that that expiring flame was being retouched with the brain's own native fire; those eyes, which a few hours before were almost in rigor mortis, began to awaken as if touched by a magic wand, and we had the satisfaction of seeing this patient recover.

The above are two examples of cases, among many, where I have used Nux with great advantage. In every disease, whatever the name, when there was reason to suppose that the nervous centres have been overcome and prostrated, indicated by coma, tremors, etc., the employment of this remedy has been attended not by any means with invariable success, but with great utility in many cases; and should I be asked with what remedy I have been most highly pleased—what have I used which has given me the greatest assurance, has disarmed the angel of death and cheated him of his victory? —I should answer, Nux Vomica.

I am anxious, therefore, to humbly submit it to the test of practitioners, in the exhaustion and prostration of the nervous centres, believing that there is no other article of the Materia Medica so potent for arousing and revivifying their lost power.

March 4th, 1865.

HOW TO PRESERVE VACCINE MATTER.

By Dr. D. PRINCE, of Jacksonville, Ills.

Take a portion of common alum (Sulph. Alumina and Potassa) and boil it upon a hot iron—a red-hot shovel is generally employed—until the water of crystalization is driven out. From this exsiccated alum, fill half-full a bottle of an ounce or two capacity; such a bottle as is usually employed for Sulphate of Morphia is convenient for the purpose. Envelope the vaccine scab in a convenient fold of paper and place in the vial over the alum. Adapt a well fitting cork, cut off even with the top of the bottle; seal air tight with good sealing wax, and set the bottle away upon a shelf.

The one indispensible requisite to the preservation of Vaccine matter is to dry it completely and keep it dry. There is probably hardly any limit to the time it may be kept perfectly fresh and susceptible, if this condition is complied with. Any other substance having a strong affinity for water like fresh-burned lime would do well, but alum, on the whole, most perfectly combines cheapness and convenience. The writer has kept Vaccine matter through two hot seasons by this method, and has acquired entire confidence in the method.

The same material may be used over from year to year by re-heating, to be sure that the vapor absorbed is thoroughly expelled. Upon this condition depends the success of the method.

For perfect safety in transmission, the bottle thus prepared should be enveloped in a tin case, which should be soldered air tight. Thus prepared, the package might be sent round the world with perfect confidence in the preservation of the virtues of the matter.

The method of enveloping the *undried* scab, or the lymph preserved upon quill points, in wax or tin foil, or sealing them in glass tubes, without drying material to absord the moisture both of the matter and of the air, is worthy of no confidence, and indeed is utterly useless.

Jacksonville, March 15, 1865.

REPORT OF AN UNUSUAL CASE.

By JOHN G. MEACHEM, M. D., of Racine, Wis.

John Rasmusen, while on a visit to Kansas, in the spring of 1859, became the subject of a severe attack of Typhoid Fever, which continued its course for a period of five weeks, and after convalescing, through careless exposure, he was again brought to his bed, and compelled to suffer three weeks more from relapse. During this second attack, he experienced more or less constant pain in the head, and was at times very delirious. He however recovered to all appearance perfectly, and so remained for several weeks. One morning he received a letter from his wife, who was then in this city, and in attempting to read it, found great difficulty. The letter was legibly written, but he could scarcely distinguish one word from another. All the symptoms of approaching amaurosis rapidly developed themselves. The air was full of floating black spots; he was unsteady in his gait; he had no confidence in stepping, for he had no appreciation of distance. In ascending a flight of stairs he would often fall forward by striking his toes against the perpendicular part of the step, instead of elevating his foot sufficiently high to place it upon the horizontal surface. His eyes looked vacant and inexpressive; the pupils were largely dilated, and he again began to

complain of cephalic pain. It was not severe, but he described it as "a pressure from within outwards." The onward march to complete amaurosis was remarkably rapid, it requiring but a few weeks to render him totally blind. He was a man possessed of more than an ordinary amount of energy and courage, and, though deprived of sight, was not content to cease his efforts to procure his own livelihood. He set about learning the art of broom making, which he succeeded in mastering in a wonderful manner, and at which business he continued until a few months prior to his decease.

In the spring of 1863, he became epileptic. His first distinct paroxysm I witnessed. It was quite severe. After it he remained unconscious for an hour. The next day he resumed his work, and, with the exception of some virtigo and a little increase of the pressure before described, he was as well as before the attack.

These epileptic paroxysms continued to recur monthly for nearly a year, after which they became more severe, with also a very marked increase of his sufferings. The pain in the head upon the right side, over the temporal bone, was complained of as being excruciatingly severe. He would often say, "I know some one is boring into my head with an auger." Not long after this character of pain began the right side of the face became paralysed, and the consequent deformity seemed more marked than usual. He was now unable to follow his usual avocation, but so determined was he to do as long as he lived, that he would send, and sometimes even go to Chicago himself, and purchase brooms by wholesale and sell them here at a little advance above the cost. Time also caused him to give this up, and he was obliged to take to his bed, which nature, however, did not require him long to keep, for, in a paroxysm of epilepsy, she relieved him forever of his sufferings. For a week before death the spine was rigidly curved forward, so that when the face was upwards the head and nates were the only bearing points. The head was also inclined to the right.

An autopsy was held twenty-four hours after death. The examination was made by Dr. J. G. Meachem, Jr., in presence of Drs. Nettleton, Wadsworth, Thompson, and myself.

On removing the aura mater, the brain presented a remarkably healthy appearance. All present remarked that they never saw a more perfect brain. A few of the pacheonian bodies were unusually developed. Two or three had embedded themselves completely in the parietal bones, and a pin could easily be pushed from their indentations through the bone. The ventricles contained more than twelve ounces of limpid serum.

Connected with the cerebellum, and lying upon the posterior surface of the central portion of the petrous portion of the temporal bone and embedded deeply in it, was a fibrous tumor of the size of a black walnut. The portion of the cerebellum giving origin to the tumor seemed a little hardened; otherwise there was no evidence whatever of disease in any part of the encephalic mass, except the effusion and an enormously enlarged foramen of Monro, which was three-quarters of an inch in diameter.

The third, as well as the lateral ventricles, was very greatly distended with serum, the pressure of which upon the optic commissare was doubtless the cause of the blindness, and the effusion must have taken place at the time, or soon after, the relapse of fever, as the result of inflammation, which was ndicated at that time by the pain in the head, delirium, etc.

It was the opinion of all the medical gentlemen present that the effusion was in no way connected with or dependent upon the presence of the tumor, as there was presented no appearance of recent inflammatory action in any part of the brain remote from the immediate vicinity of the fibrous growth. The facial paralysis was of course due to the pressure of the tumor upon the casserian ganglion, over which a portion of it lay.

CLINICAL LECTURES ON DISEASES OF THE EYE.

By E. L. HOLMES, M. D., of Chicago,

Lecturer on Diseases of the Eye and Ear in Rush Medical College, and Surgeon of the Chicago Charitable Eye and Ear Infirmary.

CHOROIDITIS.

Gentlemen:—The diseases of the Choroid, as now understood from investigations with the ophthalmoscope and microscope, may be divided into two classes: those in which an undue hardness of the globe, caused by an abnormal increase of its fluids, is a characteristic symptom; and those in which this hardness is not a characteristic symptom.

Cases of the first class, to which the term "glaucomatous" is often given, are peculiar to patients somewhat advanced in years. Although glaucoma is apparently a very rare disease at the west, its discussion involves a few very important principles, and for this reason I shall make it the special subject of the next lecture.

Diseases of the Choroid, belonging to the second class, are not unfrequent, and embrace many cases which were included, previous to the discovery of the ophthalmoscope, in the indefinite terms, amaurosis and amblyopia.

One of the most common forms of Choroiditis is intimately related with disease of the retina, and is known as retinitis pigmentosa, although Choroiditis pigmentosa would seem to be the most appropriate term. The only symptom of this disease experienced by the patient is usually, a more or less gradual loss of vision. There is generally neither pain nor any abnormal appearance, as seen by simple inspection. Occasionally the pupil will be found either oval in form or sluggish under the influence of alternate light and shade. Belladonna seems to dilate the pupil more slowly than in health. The disease is peculiar to youth and early manhood, and generally, it is stated, affects both eyes.

Upon examination with the ophthalmoscope, the lens, vit-

reous humor, and cornea are almost always found transparent. The choroid, especially its posterior portions, present peculiar changes, which are well represented in the plates of Jæger and Liebrich.

In some cases the pigment layer is, to a greater or less extent, absorbed, exposing to view, in irregular patches, the larger vessels of the choroid, which appear as quite broad, yellow lines, beautifully curved and looped together. Instead of being thus absorbed, the pigment will often be found deposited in increased quantities in irregular, jet black patches. With these appearances there are, not unfrequently, more or less extensive, thin yellow exudations. The portions of the choroid, thus affected with yellow deposit, are very often surrounded by narrow black lines of pigment. These three abnormal changes may take place in the same eye, varying in different cases, as regards their relative extent. The different shades of color and combination of forms, as seen with the ophthalmoscope, are often very beautiful.

The disease is generally, either as cause or complication, accompanied with an abnormal condition of the retina and optic nerve, as shown by changes in the retinal vessels and the papilla.

Scarcely anything is known regarding the cause of this affection. Although a few cases may be referred to a scrofulous or syphilitic condition, it does not in the majority of cases seem to depend upon any particular diathesis. A few cases have been observed in children of consanguineous parents. Too few observations have been made, however, to prove the relation of cause and effect in these cases.

The progress of the disease is usually very slow, and the prognosis as regards improvement of vision grave. Nothing of much practical value is known regarding the treatment of this disease. Everything possible should be done on the part of the patient to preserve good health and in no way to fatigue the eyes.

Another form of choroiditis generally observed in children

is characterized by the presence of an organized tissue, extending from the choroid, in the form of a tumor, which causes absorption of the vitreous humor, and finally fills the whole globe. This has been called hyperplastic inflammation of the choroid.

The symptoms, as regards pain and congestion, are very slight in some cases, and in others very marked. Vision even in the early stages of the disease, is destroyed. As the growth increases in size, it can be seen with the unassisted eye, as a glistening, yellowish white tumor behind the iris, which somewhat resembles the encephaloid tumor of the retina peculiar to children. It is not, however, malignant, and is not prone to return in the adjacent tissues when the globe has been extirpated. The diagnosis between this form of non-malignant growth and true cancerous disease is sometimes very difficult.

The tumor is composed of long spindle shaped cells, with an intercellular substance, containing blood vessels.

As the disease progresses it produces absorption of the intraocular tissues and finally terminates in atrophy, which may occur either with or without suppuration. In the majority of cases suppuration causes sloughing of the cornea and destruction of the tumor itself. Occasionally suppuration fails to produce this result, the size of the tumor and the amount of purulent discharge both increasing until the patient finally succumbs.

In cases of atrophy without pain, and sympathetic inflammation of the other eye, there is little call for treatment. But in the cases just mentioned, with exhaustive suppuration, the removal of the eye seems to be the only alternative.

Choroiditis of a more or less active form, and often tending to the formation of pus, is not unfrequently the result of several abnormal conditions, not only of the eye but of the system. The iris is almost always implicated in this form of the disease. There is pain in and around the eye varying very much, however, in intensity in different cases; congestion of the subconjunctival and conjunctival vessels; discoloration of the iris

with sluggishness and irregularity of the pupil, and very speedy loss of sight, with opacity of the internal refracting media of the eye. There is sometimes an increased hardness of the globe, although this is not a characteristic symptom of the disease.

The inflammation may arise from injuries, as from pieces of steel or percussion cap penetrating the globe, severe blows, wounds of the cornea and sclerotic. It may follow operations for cataract, either by extraction or depression. Large penetrating ulcers of the cornea, by reducing the normal intra-ocular pressure, may occasionally cause passive congestion of the choroid, terminating in inflammation.

The iris and choroid of one eye may become affected by sympathy when the other eye is suffering from choroiditis, especially when produced by foreign substances within the globe by a dislocated lens, or by severe injury of the ciliary bodies. Choroiditis is occasionally a complication with suppurating or gangrenous wounds of the body, with puerperal fever, typhoid fever, variola, measles. Neglected iritis, if subject to relapses, and attended with adhesions of the iris to the lens, is very liable to be accompanied with choroiditis.

The prognosis in nearly all these cases, especially if there is tendency to the formation of pus, is unfavorable. The most careful attention to diet, rest, the use of alteratives and absorbents, seem scarcely to be of any avail.

The large majority of cases require either the removal of a piece of the iris, or the section of the ciliary muscle, as proposed by Hancock. If the disease is caused by the pressure of a foreign substance in the globe, or by a dislocated lens, efforts should be made to remove them, provided they can be seen. For the purpose of saving the other eye, it is not unfrequently necessary to resort to the extirpation of the globe originally diseased. This operation is perhaps demanded whenever there are symptoms of sympathetic inflammation, as photophobia, with loss of sight, and congestion of the deeper vessels of the conjunctiva.

TO THE MEDICAL PROFESSION OF ILLINOIS.

The undersigned, Chairman of the Committee on Practical Medicine of the Illinois State Medical Society, solicits replies to the following series of questions. He would be gratified at receiving papers at large, but, where this is not convenient, succinct answers to the interrogatories here proposed would materially facilitate the purposes of the Committee and the Society. Full credit will in each case be given to respondents. Address, prior to April 20th, Dr. J. ADAMS ALLEN,

Box 4458, Chicago.

1. What is the general character of the surface of the country in your section, (rolling, level, marshy, etc.)?
2. What is the prevailing direction of the winds?
3. What is the character of the water used as beverage?
4. Are the streams sluggish or rapid?
5. Is the soil loam, clay, gravel, or sand?
6. Woodland or prairie?
7. To what extent cultivated?
8. General occupation of inhabitants?
9. What particular circumstances exist, which may have an influence on public health?
10. What are the endemic diseases?
11. What epidemic forms, the last year?
12. In what months did they occur?
13. What ages, sexes, or occupations most affected?
14. General, or confined to a particular locality?
15. Proportionate mortality?
16. Were there any peculiar symptoms, or an absence of usually observed symptoms?
17. What variation in the relative intensity of the common symptoms was noticed?
18. What peculiarities observed *post mortem?*
19. Please state the character of the season during the epi-

demic, or immediately preceding, and any other circumstance or fact which might explain its prevalence?

20. Any peculiarities of treatment confirmatory or diverse from that laid down in the text books?

CHLOROFORM.

By M. M. EATON, M. D., of Peoria, Ill.

This is one of the greatest blessings God has given to man, and if, by this short article I can attract the attention of a few of my Medical friends, and thereby influence them to use this most valuable remedy more frequently and more intelligently, I shall be doing my duty to the suffering sons and daughters of Eve.

I am well aware that there are a few timid practitioners who have sought to throw this remedy into disrepute, and there are a few careless or ignorant ones, who have partially succeeded, by means of their failures and accidents. Now I do not desire to be understood as saying that this remedy can do no injury. If this were so, then it is inert; for any good, active remedy must do injury when improperly used, or used in improper cases, or under improper circumstances. But what I do say is this, that most of the deaths that have occurred from Chloroform (so said), have been caused either from improper administration, improper circumstances, or when given to improper patients.

Now, thanks to Drs. Brainard and Miller, (who first taught me its proper administration, while under their tuition in Chicago City Hospital,) I can say, after a considerably extended practice in Surgery and Obstetrics, I have never had the least unpleasant effect from its administration, though using it almost daily the past five or six years.

1st. How should it be given?

2d. For what should it be given?

3d. To whom should it be given?

4th. What circumstances should be observed, and what precautions taken?

It should be inhaled in such a manner as to be freely mixed with the atmosphere. Simply pour a dram or two on a napkin, and hold within an inch or two of the nostrils, directing the patient to inhale freely—use none of the patent inhaling apparatus, they are more of a nuisance than a convenience—don't be alarmed if the patient is restless and talks incoherently, but give more until he will answer no more questions, keeping your finger on the pulse to see that it beats well.

So much for its administration; and here let me say I have never met a patient that could not be pleasantly influenced by this drug if it was given in large quantities enough. Now for the second question.

It should be given when any serious surgical operation is to be performed, excepting those in the mouth or throat where there will probably be great loss of blood, as in such cases there is danger of the blood choking the patient, if he is insensible. In other cases I deem it a cruelty to refuse to our suffering patient this invaluable boon. It should be given to women in labor when much desired always, and should be given anyhow where there is present a rigid, undilatable os uteri, and consequently a protracted labor. I often have in this way secured a speedy delivery in these cases, and have never had injury to result to mother or child from its use. Before turning I would always give it, unless my patient was so low from loss of blood as to be insensible, and as a consequence the parts thoroughly relaxed. It may be given to babes and young children fearlessly, when operating for Talipes, or any other painful operation. Your patient is then entirely under your control, and can be treated more skillfully and rapidly than could otherwise be possible; and the cries of the little patient will not unstring your nerves and make you incompetent to perform your task. Operating often for Talipes, I have always used Chloroform with great pleasure and

satisfaction. For the convulsions of children, it is the most valuable remedy in the "Materia Medica." I cause the child in such cases to inhale the Chloroform till quiet sleep is induced, then sit by and watch it, and if convulsions again come on, give more Chloroform, and so continue till they disappear, then attend to the teeth, lance the gums, if necessary give a little soda, with or without calomel, as the case seems to require. This is the only treatment I have confidence in or would dare rely upon, as I have been very successful with it, and very unsuccessful with any other management.

It has gained favor with the majority of medical men that Chloroform should not ever be given to patients affected with Phthisis Pulmonalis, or Cardiac Disease. I have given it in both classes of patients without injury, and my experience in this is the same as that of Prof. Wright, of Cincinnati, related to me the past winter while visiting him. Therefore, I say it may be given to all patients requiring its use, if given properly and under proper circumstances.

What are these circumstances? First, have your patient in a recumbent posture—don't forget it. *Never give Chloroform to a patient sitting, standing, or semi-recumbent.* Dentists please note. Most of the accidents from Chloroform have been under your administration, where your patient was semi-recumbent. Always have the head nearly as low as the body. If syncope threatens, carry the head off the table or bed and hold it below the body, so as to allow the blood more readily to go to the brain and maintain life. Have the patient fast one meal before the Chloroform is to be given—much injury and annoyances often results from neglect of this precaution. If the patient is anæmic give a glass of brandy and water before the Chloroform. Have Spirits Ammonia by you, to be used if needed. Do not mix your Chloroform with Ether or anything else, if you want to be able to manage your case give *pure* Chloroform. This course has aided me materially in the little reputation I have in surgical and obstetrical practice. I hope to hear other physicians' experience with this valuable medicine.

DEATHS FROM CHLOROFORM.—In the *Medical Times and Gazette* of January 7th we find two more deaths from the use of chloroform reported, although special precautions were taken in administering it. The cases are published by Mr. J. Usher Huxley, House-surgeon to the Devon and Exeter Hospital. We copy the first in full, as follows:

"W. L., a healthy looking young man, aged 24, was admitted into the Devon and Exeter Hospital on Sept. 26th, suffering from a severe injury to the right foot. A heavy piece of timber falling on it had fractured the metacarpal bone of the great toe, and deeply lacerated the structures of the inner side and sole. The case went on well, and after the separation of some rather extensive sloughs, healthy granulations filled up the greater part of the chasm. The distal end of the fractured metacarpal bone, however, though evidently dead, remained fixed, and considerably hindered the progress of the wound. The man was therefore told that he must either be contented to remain in bed several weeks longer while the bone spontaneously separated, or must submit to a slight operation for its removal. He chose the latter, on condition that he might have chloroform. The heart was examined, and nothing being found to contra-indicate the employment of an anæsthetic, his wish was acceded to.

"On November 1, at 10 A. M., the patient was carried to the operating room. Two of the Hospital surgeons and the House-surgeon were present; three pupils and two nurses were also in attendance. Forty minims (measured) of chloroform were placed in a Snow's portable inhaler, and the inhalation was commenced, the external valve being at first turned aside and afterwards gradually closed. The man breathed calmly and showed no symptoms of annoyance or distress, and in about a minute began to smile, talk, and move his head slightly. The pulse, which was kept throughout, beat quite steadily for from two to three minutes, when it suddenly became imperceptible; there was no congestion or other change of the countenance, the pupils were not dilated, and the breathing was as yet quite natural; the inhaler, to which no fresh charge of chloroform had been added, was, however, immediately removed. In the course of a few seconds the respiration became deep and sobbing, and the tongue was protruded between the teeth; no return of the pulse could be felt. The only approach to spasm or convulsion was that for a few seconds the teeth were firmly clenched; this quickly passed off, and the tongue was again protruded.

The time during which the respirations continued, unaided, after the pulse had ceased, may be put down at fully a minute, and not until still later did the face become congested or the pupils dilated.

"The cold douche, ammonia, brandy, galvanism, and forceps for the tongue (as always at this Hospital) were at hand in the operating room. The first was applied directly the pulse was missed, and in the shortest space of time brandy was injected into the rectum, solution of ammonia on lint was applied to the nostrils, and galvanic shocks were passed (with due intermission) through the cardiac region, whilst friction was applied to the extremities. The forceps were not needed, as the tongue did not fall back.

"Immediately the breathing began to flag, artificial respiration by the 'Sylvester method' was commenced, and this was steadily carried on for upwards of half an hour. The galvanism was applied at intervals for a like period. No trace of reaction occurred. It should be stated that the inhaler had not been used for any other case that morning, so that it contained absolutely no chloroform but the forty minims.

"*Autopsy six hours after death.*—Body muscular, well nourished. Throax—Pericardium natural; surfaces of right pleura everywhere firmly adherent; both lungs healthy in structure, the right more congested than the left. On removing the heart (all its orifices having been previously secured), the ventricles were found firmly contracted and empty; the auricles contained some blood, the right in larger proportion. In these and in the large veins the blood was mostly, but not wholly, uncoagulated. All the valves of the heart were perfectly healthy. The muscular substance was firm, of good color, and without the slightest appearance of fatty or other degeneration. On microscopical examination, the ultimate fibres were found free from oil-globules, and striæ were well marked. The walls of the left ventricle were slightly hypertrophied without dilatation. The whole organ, washed free from blood, but with a portion of the large vessels adhering, weighed 14½ ounces. Aorta healthy; no appearance of clots in the pulmonary artery. Abdomen—Stomach moderately filled with food. Spleen natural; weight 11 ozs. Liver large, congested; weight 5 lbs. 12 ozs. Kidneys, large and much congested; weight, the right, 9¼ ozs., the left, 9¾ ozs. Both liver and kidneys were firm to the knife, and the surface of the sections looked smooth and rather glistening, so that there was no question as to albumenoid (amyloid) degenera-

tion; but there was no semi-transparent, glue-infiltrated appearance of the cut surfaces and edges, and no reaction, characteristic of the amyloid change, took place when solution of iodine was applied. Under the microscope, too, both the arteries and cells of the hepatic and renal structures appeared perfectly natural. After being allowed to remain for some hours (covered over to prevent evaporation), it was found that a quantity of blood had drained from the cut surfaces, and that the liver had assumed the ordinary size, while the kidneys were much reduced in bulk. Sections now freshly made showed perfectly natural surfaces. Head (examined last)—The brain and its membranes were perfectly healthy, and not at all congested; blood, however, had probably drained away from the divided veins of the neck. Some urine drawn off from the bladder after the examination contained a trace of albumen, and a flocculent deposit consisting solely of epithelium.

"At the inquest held on this case the jury returned a verdict of 'Homicide by misadventure,' and wholly exculpated the medical officers from blame in the matter."

This case we look upon as one of the greatest value in its bearing on the question of the possibility of employing chloroform as an anæsthetic without danger. It could have been hardly possible to take greater precautions in administering it, or to use more faithfully all the means likely to have had any efficacy in the endeavor to rescue the patient from his perilous situation; and yet death followed. The eyes of the profession in Great Britain have been gradually opening to the alarming risk inseperable from the ordinary methods of inhaling this anæsthetic, and the recent report of the chloroform committee will undoubtedly have a good effect in checking its heedless employment, and in inducing greater watchfulness in those who are willing to deal with such a fatal agent. A new inhaler has been recommended, by which a proper dilution of the vapor with fresh air is secured, and the pulse is entrusted to a special guardian during the whole process of inhalation. With such precautions it is thought this anæsthetic may be disarmed of all its dangers. Now let us look at the case before us.

First, the patient was a young, healthy subject, presenting no constitutional contra-indication, so far as could be discovered, to the use of an anæsthetic. Second, the amount of chloroform inhaled was small—only forty minims—and given with great caution from an inhaler, with a due admixture of

air with the vapor. Third, the pulse was watched from the first. And yet, without the slightest warning, without any evidence of distress or of cerebral oppression, without any faltering or weakness of the pulse to give the alarm, it instantly stopped, and did not return. Surely one who is accustomed to employ this agent may well be appalled by such an unlook-for casualty. Every known precaution taken, a fit subject for the inhalation, instant death without warning!

The case, as we have seen, is most carefully reported. The results of the autopsy are most interesting. It will be observed that the heart, *ultimum moriens* as it had been called, was found "firmly contracted and empty." This condition is very significant when considered in relation to the usually accepted explanation of chloroform deaths. Paralysis of the heart is the commonly received cause of death in these cases. The agent is thought to act with fatal rapidity by destroying the sensibility of the vital centre and thus arresting its action. It is pretty important matter to determine whether this is the true explanation of these terrible calamities, since upon it depends the theory of the treatment. It would seem, in the case before us, that death was caused by *spasm*, not paralysis, of the heart. The organ shut itself up so closely that not a drop of blood could enter it, and maintained its grip until the *rigor mortis* took its place. There were only slight signs of external spasm, the respiration was unobstructed and continued some time after the heart stopped beating, and yet it would not respond to the usual stimulus of the vital current. The blood was found to be mostly fluid. The poison had entered it and destroyed its normal properties, and the principal instrument in its distribution refused to drive it through the system. The deadly effect on the blood which chloroform produces cannot be too greatly emphasized. The mischief is most radical in its nature, and the entire suspension of the inhaling process cannot undo it in time to avert the danger. We are not aware that any investigations have been made to determine whether sulphuric ether produces any poisonous change in the blood when inhaled. Certain it is no instantaneous death has ever occurred under its use, and the symptoms which it causes diminish from the moment it is withdrawn from the patient.—*Boston Med. and Surg. Journal.*

SELECTED.

PHYSIOLOGY OF TASTING.

By Mr. NORTON FOLSOM.

When a substance to be tasted is placed in the mouth, we press it with the upper surface of the tongue against the palate, and thus force its particles in every direction. The saliva, poured in by its glands responsive to the stimulus, aids in dissolving and disseminating the particles over the mouth. When the substance reaches the fauces, and it is swallowed, a current of air escapes from the glottis, and carries any volatile portion to the posterior nares, where it is liable to affect the sense of smell. Plainly, therefore, in order to separate the two sensations, we must either shut off the cavity of the nose during the tasting, which can be done by most persons voluntarily by breathing through the mouth and applying the soft palate to the back of the pharynx, or we must interrupt the current of air through the nares, which can be done by holding the nose with the fingers.

We recognize two classes of impressions made by articles of food—one of *savors*, of which salt affords an example; the other of *flavors*, as that of vanilla. Most substances have both properties; thus a strawberry has an acid and a sweet taste, besides its own delicious flavor.

The distinction between these classes has not, indeed, been fully made by physiologists until of late; and still less has the fact been recognized, that *all flavors are perceived by the organs of smell only*, reducing the number of impressions which the organ of *taste* is capable of receiving four only, viz., Sweet, Sour, Salt and Bitter. This can, however, be easily and certainly demonstrated. Let the nose be closed by the fingers, or let the posterior nares be shut off by the soft palate, and a solution of vanilla be taken into the mouth and swallowed. It cannot be distinguished from water. Soup, nutmeg, cheese, pineapple, and asafœtida are alike entirely *flavorless* under similar conditions, though the ordinary sensibility of

the mucous membrane, and the perception of the four savors above mentioned, may enable us to comprehend certain *other* qualities which distinguish these substances. The common practice of holding a child's nose while it swallows disagreeable medicine, has its origin in this peculiar relation of these two senses.

We have now to consider the exact locality of the sensations produced by these four classes of stimuli. Experiments have been tried by various physiologists with entirely different results, which may be attributed to want of care, and to not recognizing the fact that all *flavors* should be excluded from the investigation. All agree, however, in this—that, to be tasted a substance must be brought to the sensitive part *in solution*, inasmuch as insoluble substances have no taste.

In the experiments performed by the writer, solutions of white sugar, tartaric acid, common salt, and sulphate of quinine were carefully applied to various parts of the mouth and fauces by means of a camel's hair pencil, pains being taken that no excess of fluid should be used, which might diffuse itself over other parts than that directly under observation. The following results were uniformly obtained in six different individuals, they all being unaware of the substances used in each experiment:—

1st. The upper surface, tip, and edges of the tongue, as far back as to include the circumvallate papillæ, are the only parts concerned in the sense of taste; the hard and soft palate, tonsils, pharynx, lips, gums, and under surface of the tongue being entirely destitute of this sense.

2d. The circumvallate papillæ are by far the most sensitive portion of the organ. They perceive, at once, very minute quantities of any one of the four substances used, and are particularly sensitive to bitter. Irritating these papillæ by pressure, or placing a drop of cold water on them, excites decided sensations of bitterness.

3d. The central portion of the dorsum of the tongue, to within half an inch of the edge, is the least sensitive portion. Substances are distinguished with difficulty, or not at all, when applied to it.

4th. The edges and tip of the tongue are quite sensitive, the edges becoming less so as we come forward. They recognize all the four classes of substances. The tip detects bitter with great difficulty, but is particularly sensitive to sweet. A sweet sensation, sometimes mingled with sour or salt, is produced by gently tapping it with any insipid soft substance.

The tongue possesses *ordinary sensibility*, to a marked degree, especially at its tip, and in this way detects the size, shape, and texture of substances. It is in the same way that the qualities of pungency and astringency are perceived, which fact is proved by their being nearly imperceptible to the conjunctiva.—*Am. Drug. Cir. and Chem. Gaz.*

ON THE MECHANISM OF SPEECH.

By ISAAC PIDDUCK, M. D.

To compare the mechanism of speech to that of a musical instrument, the organ, for instance: the chest is the bellows; the abdomen is the blower; the throat is the windpipe; the larynx is the reed; and, besides these, the cartilages and vocal cords are the strings; showing that the sounds of the voice are produced by the combination of a wind and a stringed instrument.

The sound formed by the larynx, (consisting of the rima or chink,) the cartilages, and the vocal cords, is divided by the tongue, the palate, the cheek, the teeth, and the lips, into letters, syllables, words, and sentences. Upon the perfect formation and healthy condition of these several parts, the strength, the rhythm, and the distinctness of the voice depend.

But to play skillfully on a musical instrument, long and careful practice is required. All persons learn to speak, as some persons learn to sing, by the ear; but very few either speak or sing correctly unless the organs of voice have been properly taught, and brought into perfect subjection by regular instruction and strict discipline. It was related of three young ladies, sisters, that they could sing, but not read aloud for any length of time, without becoming hoarse and losing their voice. They had been taught to sing, but not to speak.

By way of illustration, let us consider—

1st. The chest, or bellows. In order to speak with a loud and clear voice, so as to be heard distinctly at a distance, the capacity of the chest should be ample. This may be increased by exercise, by taking deep inspirations, and by holding the breath a short time when the chest is full, suffering the air to escape gradually by counting aloud 1, 2, 3, etc., up to 50 or 70. By this means the chest may be expanded in every direction, and its capacity greatly enlarged.

2d. The abdomen, or blower. Fullness of the abdomen is caused by eating and drinking largely, and this, again, causes flatulence, distension, or the deposition of fat, especially by the neglect of exercise; and this impedes the muscular action of the abdomen in expelling the air from the chest with sufficient force to produce a full volume of voice.

3d. The trachea, or windpipe. And 4th. The larynx. These most important parts are liable to catarrhal and nervous affections by which the voice is lost, or is rendered hoarse and discordant—*vox faucibus hæsit.* The causes which produce this injurious effect are—breathing a close, heated atmosphere, wearing warm wraps round the throat, drinking freely of hot liquids, particularly hot tea, spirit-drinking, snuff-taking and tobacco-smoking, the use of voice-lozenges, straining the voice beyond its compass, and by frequently clearing the throat. The articulate sounds, the rhythm and *timbre* of the voice, being formed by the larynx, compounded of the cartilages, the rima, or chink, and the vocal cords, and being divided by tongue applied to the palate, the teeth, and the lips into letters, syllables, words, and sentences, it is most important that all these several parts should be in a normal and healthy condition. If the tongue be too large or too small; if the palate be cleft, too arched, or too flat; if the cheeks or the lips be too largely or not fully developed, and the teeth be defective, the voice will be deficient in power, and the words will be indistinctly pronounced.

In order to attain an effective elocution, the following rules should be observed:—

1st. The speaker should stand erect, and the head not bent upon the chest, that the muscular movements of the abdomen, chest, and throat may be free and unconstrained.

2d. The chest should be fully expanded by each inspiration at the commencement of every sentence. The disregard of this rule is a frequent cause of stammering. To fill the chest and to hold out the breath to complete each sentence, the inspiration should be made through the nose. By this mode of inspiring though the nostrils, the mouth and throat are prevented from becoming dry and the voice from becoming hoarse.

3d. The pauses should be long enough for each sentence to reach its destination before it is followed by another; and, *cæteris paribus*, the slowness of the utterance should be in the ratio of the size of the room and the number of the audience.

"Learn to speak slow: all other graces,
Will follow in their proper places."

4th. Every word, if not every syllable, and almost every letter, should be distinctly enunciated, that the attention of the auditory may not be diverted from the sense to catch the sound. By this two-fold effort the attention soon grows weary and the hearer listless, and then instruction or amusement ceases.

Among the faults of extemporary speakers, lecturers, and preachers, rapidity of utterance is one of the most common. Deliberation gives time for the choice of words; and, in consequence, the speech, the lecture, or sermon is more effective, is less tedious to the hearers, and commands greater and longer attention. This rule requires self-possession, a perfect knowledge of the subject, and an earnest desire on the part of the speaker to enlighten and instruct his auditory. Rapidity of reference and of quotation may excite astonishment, but it does not impart information, which should descend upon the mind as the dew from heaven.—*Lancet.*

PROTECTION FROM SMALL POX
BY MEANS OF
VACCINATION AND RE-VACCINATION.

The resolutions found below sufficiently explains the circumstances under which the report was made, and as none can realize more fully than we do, the importance of the subject on which it treats; it gives us great pleasure to aid the committee in their laudable efforts to disseminate the facts therein contained, by placing this abridgment of their report—which nevertheless, contains all of it that is essential—before the readers of the *Journal.* The article is too meritorious to need our praise, but in one particular we regret the tendency we fear it will have, and that is the inculcation of the belief that there can be little danger of inoculating disease along with vaccine matter. On this point our observation leads us to think there is greater risk than is usually apprehended. In-

stead of saying of vaccine matter, that "*None should ever be used knowingly, except that which has been obtained from perfectly healthy persons,*" we would say that none should be used except it is *known to be from perfectly healthy persons.* Such vaccine matter only should be used as has been obtained from healthy *children* of good natural constitutions, for thereby the danger of syphilitic contamination is avoided, or greatly lessened; and except in an emergency we would advise physicians only to use such matter as they have themselves taken. If they must obtain it from others, let them take every precaution to procure such as will be most likely to prove good, and with it vaccinate a healthy child, observing its course to know that there is no erysipelatous inflammation attending it, and waiting the maturity of the scale, make use of it for general vaccination. When the unexpected appearance of small pox suddenly throws a neighborhood into a state of excitement and alarm, of course this precaution could not and should not be taken; but communities should not wait the presence of the disease, but by suitable precaution make its coming impossible. We have no doubt that disease is sometimes engrafted on the constitution through the vaccine matter, and yet with proper care, vaccination is *absolutely free from all danger.*—EDS.

At the annual session of the American Medical Association held in New York, June, 1864, the following resolutions were adopted, and the undersigned appointed a Committee to carry them out:—

"*Resolved*—that the Association deems it a duty to institute measures looking to the vaccination, ultimately, of every person living in the limits of country over which it exercises influence.

"*Resolved*—that a Central Committee of five be appointed to enlighten the public mind, by all available means, upon the value and necessity of universal vaccination.

"*Resolved*—that the Central Committee be authorized to appoint associate and auxiliary committees in each State."

According to the most reliable statistics obtainable, the annual death-rate of the United States is about one in forty-five

of the whole population, or about 600,000 annually for the last ten years. Of this number of deaths from all causes, about one in every two hundred and fifty, or in round numbers, not less than 2,500 die annually of small pox. This mortality, estimated by the usual ratio of deaths in small pox, demonstrates the existence of more than 10,000 cases of unmodified small pox annually in the United States, exclusive of varioloid; all of which can be wholly prevented by effectual vaccination and *re*-vaccination. During the great epidemics of this disease which prevailed in Europe during the early part of the present century, all observers had abundant opportunities for ascertaining the true value of vaccination. The vaccinated and those who had previously had small pox were both found to be more or less subject to the disease. Early in the progress of these epidemics, however, an important fact became evident, namely, that there was a great difference in the mortality of these three classes:—1. The vaccinated; 2. The variolated; and 3. Those who had neither been vaccinated nor had small pox. Of the first class, those who had previously been vaccinated, out of every 330 attacked, only 1 died. Of the second class, those who had previously had small pox, 1 out of every 50 died. While of the third class, those who had neither been vaccinated nor had small pox, 1 out of every 4 died Thus proving the great superiority of vaccination over small pox itself, in protecting the system from the fatality of a second attack.

Unmodified small pox is not only a very fatal disease, as proved by its frequently cutting off one-fourth of all whom it attacks, but its tendency is to develope any latent disease which may exist in the constitution, particularly scrofula, and it is thus, indirectly, the cause of death to a much larger portion of the human race than at first sight appears. It is not, therefore, surprising that small pox, attacking for the second time an already enfeebled constitution, should cause a greater proportion of deaths than takes place when it occurs after vaccination, a much milder form of the same disease, and therefore, proportionately less likely to develope any pre-existing constitutional affection.

It may, indeed, be truly said, that during the last sixty-four years, vaccination has not only prevented millions of cases of small pox, but that it has also saved a multitude of persons from scrofula and other fatal maladies.

The human race has become stronger, has produced more hardy offspring;—not only suffering less from disease in gen-

eral, but in all respects more capable of resisting it, through the instrumentality of vaccination.

Among the earliest objections urged against vaccination, even during the time of Jenner, was the alleged danger of communicating other diseases with the vaccinia. And from that day to this, cases of cutaneous disease, syphilis, scrofula, etc., have been occasionally attributed to this cause. But if it were now possible to collect all such cases, even then, their utter insignificance when compared with the multitude that have unknowingly been vaccinated with lymph taken from diseased persons, without contamination, is such, that this evidence alone against the transmissibility of other diseases by vaccination, would be sufficient to establish the conclusion as a general rule, that *there is no danger of communicating other diseases with vaccinia.* This conclusion is in keeping with the recorded experience of Heim, Ricord, Bousquet, Taupin, Landouzy, Freidinger, and many others who have investigated the subject, and may, indeed, be regarded as an accepted truth by the most distinguished men of the medical profession.

The recorded facts, the arguments, and deductions made by investigators, in reference to the possibility of transmitting other diseases with vaccinia, added to the facts, positive and negative, which have been presented under our own observation, not only confirm our belief in the non-transmissibility of other diseases with the vaccinia, *as a general law*, but demonstrate that vaccination, besides preventing small pox, frequently fortifies the constitution of the individual against some of the worst of those very diseases which are erroneously alleged to be transmitted by it. We would not, however, be understood as approving the use of vaccine virus obtained from diseased persons; but, on the contrary, *none should ever be used knowingly, except that which is obtained from perfectly healthy persons.*

The protective powers of vaccination are most evident in their results to mankind in general. The comparative exemption of all civilized communities, for the last forty years, from the most terrible scourge to which mankind was ever liable, is an evidence of the protection afforded by vaccination, so overwhelming as to characterize the discovery of Jenner as the greatest boon ever conferred upon the temporal welfare of man.

In England alone, for nearly a century before the introduction of vaccination, no fewer than 30,000 persons were annually cut off by small pox; which, in the same ratio, according

to the present population, would be equivalent to 100,000 deaths annually. Out of every 1,000 deaths, from 1750 to 1800, there were 96 by small pox; from 1800 to 1850, there were but 35 in the same number.

In Germany, for the same periods of time, there were, out of every 1,000 deaths for the former period, by small pox, 66.5; for the latter period, 7.26.

In Sweden, for the last 28 years before the introduction of vaccination, out of each million of the population there were 2,050 deaths annually by small pox; for forty years subsequent to the introduction of vaccination, the number of deaths annually by small pox, per million of inhabitants, was 158.

In Westphalia, from 1776 to 1780, the annual small pox death-rate per million of inhabitants, was 2,643. From 1816 to 1850, it was 114.

In Copenhagen, 1751 to 1800, the annual rate per million, was 3,128; from 1800 to 1850, it was 286. In Berlin, for the same periods, the rates relatively, were 3,442 and 176.

American statistics, so far as known, are equally conclusive. According to a paper read by Dr. Robert Ware, before the Boston Sanitary Association, we learn that in Boston in 1721, the year in which inoculation was introduced, and when the whole population was 11,000, 5,759, or more than one half, had small pox, and of these, 844 died. In 1730 there were 4,000 cases and 200 deaths. In 1752, when the population was 15,684, there were 5,545 cases and 539 deaths. In 1764, there were 5,646 cases; in 1776, 5,292; and in 1792, 8,346. Compared with a subsequent period, after the general introduction of vaccination, and when it was in a measure compulsory, from 1815 to 1830, the mortality from small pox was only *fourteen;* from 1811 to 1839, it was but *fifty-two.*

By an approximate average death-rate by small pox per million of living population, from 1750 to 1800, and from 1800 to 1850, in various countries (collected by the Epidemiological Society of London), there were, in the former period, nearly twenty times as many deaths by small pox as there were in the latter. And besides, "one obviously beneficial result of vaccination, as regards its protective influence on the multitude, has not, we think, been appreciated or illustrated with sufficient force; namely, that the epidemic influence of small pox greatly increased during the practice of inoculation, and greatly decreased since vaccination has been adopted. Dr. Hebra, Professor of Diseases of the Skin, at Vienna, incidentally remarks, and simply alludes to the fact, that 'Epidemics

of small pox have been more rare and are less malignant since the introduction of vaccination.' But definite material for the following statements is to be found in the report of the Epidemiological Society, in illustration of our remarks:—(1.) During 91 years previous to *inoculation*, there were 65 distinct and well-marked epidemics, which is a ratio of 71.4 epidemics in 100 years. (2.) During 63 years in which *inoculation* was practised, and that to a great extent, there were 53 distinct and well-marked epidemics, which is a ratio of 84 epidemics in 100 years. (3.) During the last 50 years, in which vaccination has been practised, and inoculation been declared illegal, there have been 12 epidemics of small pox, which is a ratio of 24 epidemics in 109 years."*

According to the well-kept mortality statistics of Sweden, the *annual* small pox death-rate in that country, during the period of 1841–'50, averaged less than the *weekly* death-rate from small pox and measles during the period of 1755–'75. This important fact introduces us to an indirect benefit of vaccination, which has, until recently, been overlooked, namely, the beneficial influence of vaccination against other diseases. Drs. Greenhow and Farr, under the auspices of the General Board of Health of London, have shown that with the decline of small pox consequent on vaccination, the general death rate has greatly diminished from all causes; and that too, notwithstanding a severe and fatal epidemic of influenza and two epidemics of cholera; and under this diminution, it is especially notable that the two classes of diseases usually considered the most fatal, namely, scrofulous and low febrile affections, have diminished in a remarkable degree. The general death-rate per ten thousand of living population, during the periods of 1846–'55, was 25 per cent. less than the decennial period of 1746–'55; and 40 per cent. less than the decennial period of 1681–'90, showing a successive decline since the remoter period, from 421 to 355; and since the more recent period, from 355 to 249.

According to Dr. Farr's statistics, the average annual death-rates in London, from all causes and all ages, per ten thousand living, were:

From 1771–'80	500
1801–'10	292
1831–'35 (small pox prevailed)	320
1840–'54	248 9-10

*Medico-Chir. Review, October, 1857.

The average annual death-rates in Sweden, from all causes and all ages, per ten thousand living, were:

From 1776–'95.....268
1821–'40.....233
1841–'50.....205

In McCulloch's Descriptive and Statistical account of the British Empire, Dr. Farr has shown that fever has progressively subsided since 1771, (at first under the influence of inoculation); "and that the *combined mortality of small pox, measles, and scarlatina is now only half as great as the mortality formerly occasioned by small pox alone.*"

According to the researches of Dr. Greenhow, previous to the introduction of vaccination, the death-rate from scrofulous diseases was five times greater than it is at the present time; and the present death-rate of pulmonary consumption, great as it is, is seven per cent. lower than it was previous to the discovery of Jenner.

M. Bosquet,* in his detail of the epidemic which prevailed at Marseilles, in 1825, states that the whole population was estimated at 40,000. Of these, 30,000 had been vaccinated; 2,000 had had small pox; 8,000 had neither been vaccinated nor had small pox. Of those vaccinated, 2,000 were seized with small pox; twenty of whom, or one for every hundred affected, died. Of those who had before had small pox, either naturally or by inoculation, twenty were attacked, and of these four died, or one for every five who took the disease. Of those who had not been vaccinated nor had small pox, 4,000 contracted it, and 1,000 died, or one in every four. By this it appears that *one-half* of the non-vaccinated, *one-fifteenth* of the vaccinated, and *one-one hundredth* of the variolated, took the disease. But such was the difference in the comparative mortality of the attack in the vaccinated and the variolated, that while the variolated part of the population were cut off in the proportion of *one* out of every 500, the vaccinated only lost *one* out of every 1,500; or, in other words, of an equal number of variolated and vaccinated cases, *three* of the variolated died from the second attack, for every *one* that died who had been previously vaccinated.

*Traitè de la Vaccine.

RE-VACCINATION.

Several governments, confident in the anti-variolous power of vaccination, and profiting by the experience gained, determined upon re-vaccination as the most likely means of getting rid of the epidemics which were desolating their armies. The effect was so salutary as to have finally banished small pox from among them. But this was not the only benefit. Knowing as we do, that small pox and cow pox are in reality the same disease, the latter being merely deprived of its virulence by having previously passed through the system of the cow, the results of these numerous re-vaccinations are of immense importance not only in confirming the identity of small pox and cow pox, but in establishing the no less important fact, that the protective power of small pox itself wears out of the system in a certain proportion of cases, as life advances, in nearly the same ratio as that of cow pox. Thus, in all these armies, a certain proportion of the men were found to have been previously vaccinated, while no inconsiderable proportion had passed through unmodified small pox. Now, if we take the susceptibility to re-vaccination as a test of liability to varioloid, or to a second attack of small pox, we have these vaccinations proving the fact that after a certain number of years, the same proportion of those who had previously had small pox become susceptible to a second attack, as those who have been vaccinated are to varioloid. So that once having passed through all the dangers of unmodified small pox, the person, at the end of twenty years, for instance, has no better security against a second attack, than the person who has been vaccinated for a corresponding length of time.

In the Wurtemburg army, of 40,000 cases collected by Dr. Heim, on re-vaccination it was found that in every hundred vaccinated after small pox, 32 succeeded, 26 were modified, and 42 failed. In every hundred re-vaccinated 34 succeeded, 25 were modified, and 41 failed.

According to the Statistical Report of the Medical Department of the English Army, from Oct., 1858, to Dec., 1859, 32,510 soldiers and recruits were vaccinated. Of this number. 4,124 bore marks of unmodified small pox; 23,924 bore good marks of vaccination; 1,901 bore doubtful marks of vaccination; and 2,561 had no marks of either vaccination or small pox.

By reducing these figures as nearly as possible to the same scale as those above given for the army of Wurtemberg, we find that of the 4,124 who had previously had small-pox, on vaccinnation, 1,473 or 35 per cent. succeeded; 799 or 19 per cent. imperfectly; and 1,842 or 44 per cent. failed. Of the 23,924 who had good marks of vaccination, on re-vaccination 8,976 or 37 per cent. took perfectly; 5,277 or 22 per cent. imperfectly; and 9,671 or 40 per cent. failed. Of the 1,901 with doubtful marks of vaccination, the number of good vesicles on re-vaccination was 777 or 40 per cent.; modified, 505 or 26 per cent.; and 616 or 32 per cent. failed. Of the 2,561 who had no evidence of protection, on vaccination, 1,362 or 53 per cent. took; 484 or 18 per cent. had modified vesicles, and 715 or 23 per cent. failed.

In the Prussian Army, in 1860, 69,096 soldiers were vaccinated. Of this number 57,325 exhibited marks, more or less perfect, of previous vaccinnation, 7,420 being distinct; 4,151 showed no marks whatever. Of the whole number, 44,193 took; 8,256 partially and 16,047 failed. These last were vaccinated again, when 5,577 proved successful, and 11,650 failed. During the year, there occurred among those who had been unsuccessfully vaccinated and others who had been successfully vaccinated in former years, one case of varioloid, but no case of small-pox. Thus, during the year 1860, out of 69,096 vaccinations, 49,777 or 72 per cent. took. In the entire army, there occurred during the year, 23 cases of varioloid, and 4 of small-pox. Of these cases, 14 of varioloid and 4 of small-pox occurred in persons who had not been re-vaccinated; 8 of varioloid, and one of small-pox, occurred among those in whom the re-vaccination failed; and the remaining 1 of varioloid, among those who had been re-vaccinated with success.

In the United States, re-vaccination has received but little attention. On the breaking out of small-pox among a crew of five hundred persons, on board a U. S. frigate, about twenty-five years ago, the late Dr. Samuel Jackson, Surgeon U. S. N., vaccinated the whole ship's company. One in six took. They had all been vaccinated or had had small-pox before. Those on whom vaccination failed, proved to be equally insusceptible to small pox, which wholly ceased from the time the re-vaccinations took effect.

Of 686 recruits vaccinated by Dr. Forry, U. S. Army,*

* American Journal Med. Sciences, April, 1842.

560 had been vaccinated before, 74 had had small-pox, and 52 had not had small-pox nor been vaccinated. Of the 560 previously vaccinated, 381 exhibited good cicatrices; 134 imperfect, and 45 had no marks at all; 196 took, including 55 which were modified. Of these 196, 109 had been previously vaccinated before the age of five years; 48 between the ages of five and ten, and 39 subsequently to the latter age. Of the whole 560 previously vacinated, 316 were vaccinated before the age of five years; 133 between the ages of five and ten, and 111 after the latter period. Hence it follows, though not as an exact result, according to Dr. Forry's limited experience, that as the ages of the great majority of these men ranged from twenty to thirty-three (the average being twenty-five), and as the ratio of successful re-vaccination is very nearly the same after each interval of age (being about one-third), the limit of the protective power of vaccination is not restricted to any precise number of years.

The only statistics of re-vaccination of the present army of the United States, we have been able to obtain, are the following, furnished by Dr. S. O. Vanderpoel, Surgeon-General of New York, to the U. S. Sanitary Commission,* from the first returns made to him in accordance with a general order:

Total number of recruits examined	9,548
Bearing marks of previous vaccination	7,765
Total vaccinated or re-vaccinated	8,095
Found to be susceptible	2,292
No. susceptible who had marks of previous vaccination	1,338

It is evident from the foregoing statistics, that no certain period of limitation can be fixed for the protective power of vaccination. It is certain, however, that its loss of power bears *some* proportion to the lapse of time, though it seems highly probable that this apparent loss of protective power is in the same ratio as the varying liability to small-pox, independent of vaccination. Dr. J. F. Marson, the experienced superintendent of the small-pox and vaccination hospital in London, states that, "but few patients under ten years of age have been received with small-pox after vaccination. After ten years, the number begins to increase considerably, and the largest number begins to increase considerably, and the largest number admitted are for the decennial period from the age of fifteen to twenty-five, and although progressively diminishing, they continue rather large up to thirty, and from

* Sanitary Commission Report, E.

thirty to thirty-five they are nearly the same as from ten to fifteen; but as in the unprotected at this period of life, the mortality is doubled, showing the cause to be probably as much or more depending on age and its concomitants as on other circumstances. In still further advanced life, the ratio of mortality will be seen to increase also, as in the unprotected state."*

According to the statistics of Professors Heim, of Stuttgart, and Retzius, of Stockholm, and Dr. Marson, of London, the liability of small-pox is found to be, as regards age, very nearly the same as the increased susceptibility to a second vaccination, or as will presently be seen, to a second attack of small-pox.

The occasional recurrence of unmodified small-pox a second time or after a previous vaccination, does not invalidate the general law, that a person who has once been properly vaccinated or has once had small-pox, in general remains protected against a subsequent attack. It is, however, a well established fact that certain individuals who have had unmodified small pox in infancy or youth, may, especially if frequently exposed to the epidemic influence of the disease, have it again in after life; and such attacks are always much more dangerous to life than small-pox after vaccination. All medical men of much experience have met with such cases. Dr. Thompson, of Edinburg, in his own practice, met with 85 cases of second attack of unmodified small-pox; and Prof. Heim, 57. It is in vain, therefore, to expect that vaccination will give greater security to the person from a subsequent attack of small-pox than small-pox itself unmodified. All that can be reasonably asked is, that vaccination shall give as good security against a subsequent attack of small-pox as if the person had passed through small-pox itself; and this, if properly performed, and with good lymph, the accumulated evidence of the last sixty years most thoroughly proves. And with this immense superiority in favor of the protective power of vaccination over unmodified small-pox, namely: that it is not contagious; does not endanger life; does not engender scrofulous disease; does not disfigure the countenance, nor cause deafness and blindness, and does not cut off one in every four to eight affected by it—with all of which small-pox is justly chargeable.

By estimating the result of the foregoing statistics (chiefly

* Returns of Epidemiological Society, London.

obtained from the returns of the Epidemiological Society of London, and more might be furnished), embracing carefully recorded and reconcilable points of observation for nearly 200,000 cases, we are justified in accepting this experience as a safe criterion by which to base an estimate for any number of cases, great or small.

The conclusions elucidated from the data given, are:

1. That vaccination is immensely protective against epidemic diseases generally, and against small-pox in particular; and against death by small-pox, the protective power of vaccination is almost perfect.

2. That of any number of persons who have had unmodified small-pox, the proportion wholly protected from a second attack at adult age, is 43 per cent., while 75 per cent. are liable to it again in some form or other.

3. That out of any number of adult persons who have good marks of vaccination, 40½ per cent. are perfectly protected, while 59½ per cent. are susceptible to varioloid, or to re vaccination to such a degree as to render their protection perfectly complete.

4. That the degree of protection afforded by previous unmodified small-pox, from a second attack, is only 2½ per cent. greater than the protection afforded by vaccination; a proportion too small to be regarded as any evidence of real difference in protective power, and reasonably attributable to spu rious or impaired vaccination from a variety of causes, such as vaccination during the progress of other diseases, injury of the vesicle or defective lymph.

That out of any number of adult persons with imperfect marks of vaccination, 23 per cent. only are protected, while 77 per cent. are liable to small-pox or varioloid.

6. The liability to varioloid after ten years of age, of persons vaccinated under three years of age; and the increased liability again from fifteen to twenty-five years of age, of persons vaccinated or re-vaccinated at from ten to fifteen years of age, demonstrates that, generally, protection by vaccination under twenty-five years of age is complete for about seven years only. Subsequent to twenty-five years of age, protection is complete for a greater length of time, proportionate to the age of the individual at the time of the vaccination.

7. That during the prevalence of an epidemic of small-pox there is increased susceptibility to the disease, and the degree of protection from previous vaccination is proportion-

ately lessened. Under such circumstances, therefore, it is incumbent to re-vaccinate at intervals not exceeding five years; and in cases of certain exposure as soon as practicable thereafter, as there is abundant evidence of the protective power of vaccination and re-vaccination even as late as the fourth day after exposure to small pox.

8. Protection is known to be complete only when fresh vaccine lymph from a perfect vesicle fails to take on re-vaccination.

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BOOK NOTICES AND REVIEWS.

Therapeutics and Materia Medica: A Systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By ALFRED STILLE, M. D. Second Edition. Revised and Enlarged. In Two Volumes. From the Publishers, Blanchard & Lea, Philadelphia: through Wm. B. Keen & Co., Chicago.

The appearance of a new edition of Prof. Stille's work offers us an opportunity to commend it to the profession—though such commendation may seem superfluous—for since the appearance of the first edition, it has been so often and ably reviewed, and always with favor; it enriches the libraries of so many physicians and students, and is so familiar to all, that we might be justified in passing the advent of a new

edition over in silence. The second edition differs from the first in this, that the several articles which go to make up the treatise have been carefully revised, and while some unimportant things have been omitted, above one hundred pages of new matter have been added to the work, and the nomenclature and formulæ have been made to conform to the new edition of the Pharmacopœia. To us, the Author seems to have exhibited good judgment in devoting his attention largely to the *therapeutics* of medicines, which he has greatly illustrated by copious citations of their physiological action, leaving the minute details of the Materia Medica to be gleaned from more elementary works. What physicians in practice desire to obtain from works of this nature is, what medicines shall they select and how shall they use them for the cure of disease, and this, Stille teaches, and teaches it well.

The work is evidently prepared with great labor and care, and the Author seems eminently qualified for his task, not alone by his superior attainments, and the facility and elegance with which he expresses his ideas, but in that he appears to be uninfluenced by prejudice, and has no pet theories to cherish or defend, and withal his mind is imbued with a salutary skepticism, which prevents him from accepting an opinion simply because it has been long entertained, or that is commended alone by its novelty. There is, perhaps, no department of medical science in which the American intellect has shown more conspicuously than in this, and the recent labors of such men as Stille and Wood, in therapeutical investigations, have emancipated us, in this particular, from our dependence on foreign pens, and there is now no such treatise on Materia Medica, that is much sold or read in this country, and to be released from all external dependence, but especially in what pertains to the nobler achievements of the intellect, is a fit subject of rejoicing to every American. Again we would recommend the work to the *study* of those whose vocation it is to treat disease.

A Dictionary of Medical Science: Containing a concise Explanation of the various subjects and terms of Anatomy, Physiology, Hygiene, Therapeutics, Pharmacology, Pharmacy, Surgery, Obstetrics, Medical Jurisprudence and Dentistry. Notices of Climate, and of Mineral Waters, Formulæ for Officinal, Empirical and Diatetic preparations, with the Accentuation and Etymology of the terms, and the French and other synonyms, so as to constitute a French as well as English Medical Lexicon. By Robley Dunglison, M. D., LL D., Professor of the Institutes of Medicine, etc., in the Jefferson Medical College, of Philadelphia. Thoroughly revised and very greatly modified and augmented. Philadelphia: Blanchard & Lea. 1865.

The pages of the *Journal* have frequently contained notices of this work, and always commendatory, as the successive editions have appeared. The value of the present edition has been greatly enhanced by the introduction of new subjects and terms, and a more complete etymology and accentuation, which renders the work not only satisfactory and desirable, but indispensable, to the Physician.

For sale by W. B. Keen & Co., 146 Lake street.

The New York Medical Journal.—We hail with pleasure the appearance of a Medical Journal in the *City of New York*, a place of considerable importance, on account of the number of its inhabitants, its wealth and commercial advantages, but for some time without a Medical periodical of its own. The fact that a *Medical Journal* has now been started there we consider as praisworthy and honorable to the enterprise of our brethren in that distant city. We hope that this experiment may succeed. But seriously, judging from the mechanical execution and contents of the initial number, which is before us, it is to be in every particular worthy the Profession and the city whence it issues. "The New York Medical Journal" will be published on the first of every month, and will contain not less than 80 octavo pages in each number. Terms, five dollars a year. Address the "Editor, N. Y. Medical Journal." We wish the "Journal" all success, which is ensured by the long list of contributors, including the names of many of the ablest men in our ranks.

Married.—At the residence of the bride's father, in West Northfield, Ill., Feb. 13th, 1865, by Rev. Mr. Barret, C. J. LEWIS, M. D., and ANNA M. EDWARDS.

Obituary.—Died, Dec. 8th, 1864, of double Pneumonia, with Pericarditis, after an illness of five days, William Senhouse Kirkes, M. D., Physician to St. Bartholomew's Hospital, aged 41 years. Dr. K. was well known in this country by his excellent hand-book of Physiology.

A Gold Medal to M. Nelaton.—M. Durrun, accompanied by Dr. Mangies, lately presented to Professor Nelaton a magnificent gold medal, sent by the Italians residing in Peru, as an acknowledgment for his visit to Gen. Garibaldi. The medal, which is of an unusually large size, represents on one side the features of Garibaldi, and on the other an inscription declaring for what reason the medal had been offered.

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